DOCUMENT RESUME

ED 364 968 EA 025 508

AUTHOR Hirabayashi, Judy; Wheeler, Patricia
TITLE Approaches to Classroom Observations: Open versus Closed Systems.
INSTITUTION EREAPA Associates, Livermore, CA.
REPORT NO EREAPA-92-8
PUB DATE 92
NOTE 9p.
AVAILABLE FROM EREAPA Associates, 2840 Waverley Way, Livermore, CA 94550-1740 ($4).
PUB TYPE Guides - Non-Classroom Use (055)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Classroom Observation Techniques; Elementary Secondary Education; *Evaluation Methods; *Faculty Evaluation; Teacher Competencies; *Teacher Evaluation; Teacher Supervision
IDENTIFIERS Open and Closed Systems

ABSTRACT

This paper offers guidelines in the consideration of an open or closed classroom-observation system. Factors in the definition of an observation approach include target, timing, focus, topic of observation, and data-collection system. Because there are advantages and drawbacks to any classroom-observation system, the following factors should be considered when deciding whether to use an open or a closed observation system: the purposes of the observation, the amount of time and staff available to collect and analyze the data, and the extent to which the behaviors and event under study are clearly defined. Whatever observation approach is used, evaluators other than the researcher should be able to replicate the lesson, teaching context, and sequence of activities. Analysis, evaluation, and utilization of data should be conducted after the observation. The qualitative data provided by an open-ended approach can be more helpful in understanding and justifying decisions after the observation is conducted. One table is included. (LMI)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 364 968

EREAPA ASSOCIATES

EREAPA Publication Series No. 92-8

Approaches to Classroom Observations: Open versus Closed Systems

Judy Hirabayashi
and
Patricia Wheeler, Ph.D.

EA 025 508

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
P. Wheeler

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

EREAPA
Publication
Series
No. 92-8

Approaches to Classroom Observations: Open versus Closed Systems

Judy Hirabayashi
and
Patricia Wheeler, Ph.D.

EREAPA Associates
2840 Waverley Way
Livermore, California 94550-1740

1992

Copyright © 1992 by Judy Hirabayashi and Patricia Wheeler.

The authors express their appreciation to Geneva Haertel for her assistance with this paper.

Approaches to Classroom Observations: Open versus Closed Systems

Judy Hirabayashi and Patricia Wheeler
EREAPA Associates
Livermore, California

Classroom observations are frequently used for collecting data and information about teachers that can be used for such purposes as personnel decisions, performance assessment, professional development, evaluation of instructional programs, and research on teaching.

There are a number of ways in which classroom observations can be done, depending upon the purpose(s) for the observations. While certain approaches tend to be more appropriate for some purposes than others, the critical concern is to obtain the quantity and quality of information needed for the specific purpose. Some of the options are described below and the tradeoffs of various approaches to collecting data and information through observations are discussed.

Factors that Define Observation Approaches

Factors that define the observation approach include target, timing, focus, and data collection format (see Table 1). Three of these factors define the sample of data that will be collected: who is observed, when the data are collected, and on what aspects of teaching data are collected. The fourth specifies how the data are recorded.

Target. Most classroom observations focus on the teacher. However, depending on the purpose of the observation, the observer may also look at students--the entire class, a randomly selected group of students, a group of students with specific characteristics, or a single student. In addition, the observer may collect data on others in the classroom, such as an instructional aide, tutor, student teacher, or parent volunteer.

Timing. Data can be collected using various timing schemes: duration, interval, and continuous. Timing can be for short durations where the teacher is observed for, say, five minutes and then the observer makes notes for five minutes; this process is repeated several times. In the case of interval timing, the observer makes a record of what is happening at a given moment at specific time intervals; for example, every three minutes the observer records what the teacher is doing. A third timing approach is continuous. In this case, the observer records data throughout the full period of the observation, usually for an entire lesson or activity, or for a class period.

Focus. The focus defines the observation's domains and elements--those aspects of teaching behaviors, classroom events, and student behaviors on which data are collected. For example, domains could be classroom management, communication skills, knowledge of content, and pedagogical skills. Within each domain, the observation could cover various elements. In classroom management, these elements might include student grouping, student engagement, coordination with the aide, and timing of activities. The domains and elements for which data are to be collected should be determined by the purpose of the observations and should be solidly based on appropriate foundations (see Wheeler, 1991).

Data collection system. Data collection can be accomplished in a variety of ways. Some are "closed" systems in which the observer records data on selected aspects of teaching. Others are "open" systems where the observer tries to record everything that is happening. Some are a combination of open and closed systems. Examples of data collection methods that tend to be closed systems are frequency counts, rating scales, checklists, and coding forms to document behaviors and events. Guided-note taking and scripting tend to be open systems or a combination if they focus on only certain aspects of teaching. By focusing on selected behaviors and activities, guided-note taking helps ensure that data are collected on all domains and elements covered by the system. Continuous scripting (i.e., making as complete a chronological record as possible) provides better data on the sequencing of the behaviors and events, and may include data on areas not covered by the domains and elements.

Considerations and Tradeoffs in Using Open and Closed Systems

There are advantages and drawbacks to any classroom observation system; it is important to be aware of the likely consequences of choosing a particular approach. Factors to consider in deciding whether to use an "open" or a "closed" observation system include:

- the purposes of the observation;
- time and staff available to collect and to analyze the data; and
- how clearly defined the behaviors and events to be observed are.

Some typical situations in which observations might be conducted and rationales for choosing one approach over another are offered below.

What is the purpose of the observation? In informal situations, for example, when the primary reason for observing is to give general feedback about a lesson to a teacher or for professional development of new teachers, "face validity" may be the most important characteristic of the format chosen. In more formal situations, such as teacher evaluation or personnel decision making, there is a need for comprehensive data on many aspects of a teacher's performance for use in making and justifying decisions. An open system in which classroom dialogue and behaviors are recorded in detail is more appropriate for reconstructing the "reality" of the lesson and the nature of the teaching performance as a basis for discussions with the teacher and for decision making about a teacher's performance.

At the other end of the continuum, if large numbers of observations are being made as part of a research study with a focus on specific aspects of teaching or for a formal end-of-project evaluation for a funding agency and there will be no individual feedback to a teacher, one might consider a closed format such as a checklist or rating scale that focuses only on areas of interest. Such an approach could also be used to see how well teachers are incorporating, into their classroom instruction, certain techniques that were covered in a recent inservice training program.

Who will do the observation? If more than a few observations are to be conducted, it is likely that more than one person will do them. Initially, it may be more difficult to train observers to use a closed instrument, especially one that calls for coding of behaviors and events. Considerable time and extensive pilot testing may be necessary to devise a format that can be used reliably with acceptable accuracy and completeness by trained observers and that can be analyzed in an efficient and accurate manner. In comparison, guided-note taking and continuous scripting are relatively easy to design and observers can usually be trained in less time.

The relative amount of time required for developing and training observers with open and closed systems reverses during the analysis phase. Data collected using closed systems can be analyzed quickly and accurately using quantitative approaches ranging from simple tallies to specialized software.

In contrast, if narratives are to be used for more than the most informal purposes, they should be transcribed or typed into a standard format before being analyzed individually or collectively. Then, the most salient information must be identified, extracted and summarized if sense is to be made of the wealth of data and if users are to be spared lengthy descriptions of tangential and repetitive behaviors and events. Such analysis can require special expertise.

What is being observed? When it is easy to judge whether or not s ething is present (e.g., classroom is physically conducive to cooperative learning; teacher can be heard from the back of the room throughout the lesson), a simple closed method for recording the information will probably suffice. Open system are much better for capturing subtle information. For example, brief snatches of dialogue extracted from observations made over several months or years can be very instructive about how teachers' repertoires of questioning techniques evolve and how students are responding to new types of questions. Stodolsky (1990) feels that, ". . . the use of checklists of specific behaviors is compatible with the idea that teaching consists of certain classes of discrete teaching acts, but is not compatible with a view of teaching as preparing an environment for student learning" (p. 177). Wood (1992) points out that, ". . . if principals focus observations on discrete teacher behaviors, they may tend to create tunnel vision that will impede their ability to see what actually occurs in the classroom. If the intent of evaluation is to help teachers improve their instructional practices, the categories and descriptors may become obstacles to seeing rather than aids to better vision" (p. 55).

Open systems also allow one to collect data on "what is" rather than on a preconceived notion of what will be observed. Key data can be collected, even in areas not covered by the foundations and domains underlying the observations. Milner (1991) says that, "An 'objective' instrument cannot measure the 'subjective' dimensions of a classroom--that dimension which gives teaching its creative force" (p. 464).

An open system can be advantageous when the domains and elements for an observation may need to change as behaviors change over time. For example, early in a project to restructure math education or in the evaluation of new math teachers, one might focus heavily on the math content being presented and instructional modes. Several months or years later, observations might need to focus on how the teacher uses writing in math and otherwise integrates math with other subjects. In fast-changing areas such as math and science instruction in California in the 1980s, one could not necessarily have predicted several years ago what would be observable today. Teachers may "top out" on an instrument used to describe their behaviors in past years because of wide-spread adoption of or training in certain teaching behaviors. In addition, some instructional strategies or teaching responsibilities covered by the observation data collection instrument may no longer be used or applicable.

Often the ideal solution can be to collect some information in both open and closed formats, with one format enriching the other. It is easier to make sense of narrative reports, for example, if the observer has made a simultaneous record of changes in instructional mode or student grouping. Quotes of classroom dialogue can justify judgments made on rating scales and later be used to illustrate and enliven quantitative reports and evaluation summaries.

Summary

Whatever observation approach is used to collect and record data, the observer as well as someone other than the observer should be able to "reconstruct the lesson, including the sequence of instructional activities the teacher employed and . . . produce a record phrased in terms of specific behaviors" (National Association of Elementary School Principals, 1988, p. 7). The data collected should be just that--data--facts, evidence, quotes, descriptive notes. The data should reflect the teaching context and the sequence of activities in the classroom as completely as possible.

Popham (1987) describes "champagne" systems of teacher evaluation as ones "bathed in bubbles" on a form. He discourages the use of such closed systems, stating that, "By casting as much as possible of the system in a form that yields quantifiable information or, putting it more directly, numbers, the designers of champagne systems hope to create sufficient rigor in the system so that its dominantly quantitative product will be viewed with credulity. But numbers, unfortunately, are no protection against nonsense" (p. 28).

Analysis, evaluation, judgments, and use of observation results should be done after the observation. For these processes to be done in a sound manner from technical, professional and legal perspectives, it is essential that the data collection approach used provide an accurate and a comprehensive documentation record that can be used by other individuals working with the documentation or trying to understand the interpretation. The qualitative data provided by use of an open approach can be much more helpful in later understanding and justifying decisions made and in helping a teacher understand his/her strengths and weaknesses than a series of numbers, the bases for which are unclear or undocumented. Guidelines for use of an open system are provided in Wheeler (1992).

References

Hirabayashi, Judy. (1991, January 29). Observations of elementary and middle school math lessons. Presentation at a meeting of the Bay Area Women Evaluators, Hayward, CA.

Milner, Joseph O. (1991). Suppositional Style and Teacher Evaluation. Phi Delta Kappan, 72 (6), 464-467.

National Association of Elementary School Principals. (1988). Effective Teachers: Effective Evaluation in America's Elementary and Middle Schools. Alexandria, VA: Author.

Popham, W. James. (1987). The Shortcomings of Champagne Teacher Evaluations. Journal of Personnel Evaluation in Education, 1 (1), 25-28.

Stodolsky, Susan S. (1990). Classroom Observation. In Jason Millman & Linda Darling-Hammond (Eds.), The New Handbook of Teacher Evaluation: Assessing Elementary and Secondary School Teachers (pp. 175-190). Newbury Park, CA: Sage Publications, Inc.

Wheeler, Patricia. (1991, November 14). Building Teacher Evaluation Systems: Finding the Right Foundation. Paper presented at the annual meeting of the California Educational Research Association, San Diego, CA.

Wheeler, Patricia. (1992). Improving Classroom Observation Skills: Guidelines for Teacher Evaluation (EREAPA Publication Series No. 92-5). Livermore, CA: EREAPA Associates.

Wheeler, Patricia; Haertel, Geneva D.; & Scriven, Michael. (1992). Teacher Evaluation Glossary. Kalamazoo, MI: Western Michigan University, The Evaluation Center, Center for Research on Educational Accountability and Teacher Evaluation.

Wood, Carolyn J. (1992, March). Toward More Effective Teacher Evaluation: Lessons from Naturalistic Inquiry. NASSP Bulletin, 76 (524), 52-59.

TABLE 1

Factors Defining a Classroom Observation System

Factor	Definition	Examples
Target	Who is observed	Teacher Students (all, some, individuals) Instructional aides, tutors Others in classroom
Timing	When data are collected	Duration Interval Continuous
Focus	Domains on which data are collected	Knowledge of content Pedagogical skills Assessment techniques Classroom management Communication Use of resources Climate for learning Physical setting
Format	How data are recorded	Closed: Checklists Coding forms Frequency counts Rating scales Open: Guided-note taking Scripting